Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Communications Assistance For Law Enforcement Act	))	CC Docket No. 97-213

REPLY COMMENTS OF BELL ATLANTIC MOBILE, INC.

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SUMMARY

The initial comments on the Further Notice of Proposed Rulemaking[1] filed by telecommunications carriers and equipment vendors overwhelmingly agree that the industry-developed technical standard ("J-STD-025") complies with the capability requirements of the Communications Assistance for Law Enforcement Act of 1994 ("CALEA").[2] These commenters uniformly recommend that the Commission reject the FBI-proposed additions to the standard, because those additions would exceed the explicit language as well as the purpose of CALEA, based on the language and legislative history of the statute.

Bell Atlantic Mobile, Inc. ("BAM") urges the Commission to heed the wisdom of these comments and reject the FBI's proposed "punchlist" in its entirety. In this

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[1] Communications Assistance for Law Enforcement Act, CC Docket No. 97-213, Further Notice of Proposed Rulemaking ("Further NPRM"), FCC 98-282, released November 5, 1998.

[2] Pub. L. No. 103-414, 108 Stat. 4279 (1994).

reply, BAM focuses on two of the most egregious examples of overreaching by the FBI: its proposals to deem as "call-identifying" under Section 103(a)(2) of CALEA (1) in-band and out-of-band network signaling, and (2) post-cut-through dialed digits. Rejection of these punchlist items is clearly required because they are not call-identifying, and because including them in the standard would significantly increase the complexity and cost of compliance with CALEA for wireless carriers. The record also unanimously supports excluding packet mode communications from the capability standard; even the FBI does not object to this course, given the difficult technical issues that packet technology raises.

I. IN-BAND AND OUT-OF-BAND NETWORK SIGNALING DO NOT PROVIDE CALL-IDENTIFYING INFORMATION THAT IS REASONABLY AVAILABLE TO CARRIERS.

In the Further NPRM, the Commission tentatively concluded that "certain types of in-band and out-of-band signaling information ... constitute call-identifying information under CALEA" which carriers would be required to provide to law enforcement authorities ("LEA") pursuant to Section 103(a)(2) of CALEA. Further NPRM, ¶ 99. However, the Commission also noted that other types of in-band and out-of-band signaling may constitute "call content" which would be provided under Section 103(a)(1). Id. Since CALEA requires carriers to make available both call-identifying information and call content, the Commission proposed not to decide which types of network signaling fell into which category, and to require that network signaling information be added to the J-STD-025 standard.

The comments submitted on this item overwhelmingly demonstrate plain error in the Commission's analysis. First, the Commission cannot ignore the distinction between call content and call identifying information in Section 103 of CALEA.[3] As even the FBI concedes, the requirement to provide call content is broader than that for call-identifying information; only call-identifying information that is reasonably available to the carrier must be provided.[4] Therefore, the Commission must analyze whether in-band and out-of-band network signals constitute call identifying information, and, if so, whether they are reasonably available to the carrier.

Second, the Commission cannot deem most types of in-band and out-of-band network signaling as call-identifying information within the meaning of CALEA. The types of information at issue in the Further NPRM are not signals that route or direct a call through a network; rather, these are network signals that notify a caller that a line is busy or ringing, or that there is a call waiting or a message light. As many parties pointed out, such signals do not provide information that identifies "the origin, direction, destination, or termination" of a communication.[5] See 47 U.S.C. § 1001(2).

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[3] See Ameritech Comments, at 8-9; AT&T Comments, at 12-13; CTIA Comments, at 31.

[4] See FBI Comments, at 53.

[5] See AirTouch Comments, at 19; PCIA Comments, at 29, SBC Comments, at 14; U S West Comments, at 20-21.

For example, a message light indicator simply signals that a message has been left for the subject; the message light itself "is unrelated to any particular call."[6] Further NPRM, ¶ 109. Like the punchlist items of surveillance status and feature status, which the Commission deemed not to fall within the scope of Section 103(a)(2), in-band and out-of-band network signals are not "call identifying."

That such features are outside the scope of Section 103(a)(2) is confirmed by the fact that they are not currently available to LEAs pursuant to court orders or authorizations for pen registers and trap and trace devices.[7] Thus, inclusion of these items would expand the scope of information available to law enforcement, which was expressly prohibited by Congress.[8]

Third, even if in-band and out-of-band network signals could be deemed "call identifying" information, they are not "reasonably available" to the accessing carrier's network. Some signals, such as ringing or busy signals, are produced by another carrier's network.[9] "Carriers should not have to design systems to extract another carrier's signaling and deliver it to law enforcement, especially, when such signals have nothing to do with call routing...."[10] Capturing this information would

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[6] Commenters noted that such signals fall within the exemption for "information services," 47 U.S.C. § 1002(b)(2). See Ameritech Comments, at 8; AT&T Comments, at 14; U S West Comments, at 20-21.

[7] See AirTouch Comments, at 19; Ameritech Comments, at 9; BellSouth Comments, at 11, PCIA Comments, at 29; USTA Comments, at 16.

[8] H.R. Rep. No. 103-827, 103d Cong., 2d Sess., at 21 (1994), reprinted in 1994 U.S.C.C.A.N. 3489, 3501 ("House Report").

[9] SBC Comments, at 14; TIA Comments, at 33.

[10] AT&T Comments, at 14.

require substantial modifications to the existing architecture of switches. "In-band detection and extraction in the switch is not reasonably available within the scope of current switch architecture and would not be reasonably achievable as design and hardware and software additions would be required."[11] No contrary evidence rebuts this information.

The cost of providing these features will be particularly significant for wireless networks. As AirTouch noted:

> A cellular system generates out-of-band signaling messages almost constantly, including supervisory audio tones, control channel messages, and other signals that control the frequency, power, and other characteristics of a cellular call, not to mention the constant out-of-band supervisory data streams between the switch and the cell sites and between the various components of the cellular network, such as the switch, the HLR, and the VLR....If all such signaling transmissions had to be recorded and translated to messages for transmission to law enforcement authorities on a real-time basis, one vendor reports, 'the difficulty . . . increases substantially to being very difficult and costly to deploy.'[12]

Fourth, the FBI provides no rational justification that in-band and out-of-band network signals fall within the definition of "call-identifying" information. It merely argues that information on how a call is "treated" constitutes information about the termination, or direction, or destination of a call.[13] The FBI is wrong.

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[11] USTA Comments at 16.

[12] AirTouch Comments, at 20. TIA noted that adding this feature to J-STD-025 would require substantial architecture change to wireless networks. TIA Comments, at 32-33; see also USTA Comments, at 15-16.

[13] FBI Comments, at 53.

Just as "treatment" of a water in a processing plant does not identify the source or destination of the water or place of treatment, treatment of a call in a network does not identify the caller, the called party, or the route of the call. Therefore, by definition, "treatment" cannot be call identifying.

The legislative history confirms the carriers' view. Congress stated that call identifying information should be defined as "the numbers dialed or otherwise transmitted for the purpose of routing calls through the carrier's network."[14] The obvious conclusion on this record is that, for a network signal to be deemed "call-identifying," it must carry information about call routing, not how the call was treated. The inescapable conclusion is that J-STD-025 is not deficient with respect to this punchlist item.

II. POST-CUT-THROUGH DIALED DIGITS DO NOT PROVIDE CALL-IDENTIFYING INFORMATION THAT IS REASONABLY AVAILABLE TO CARRIERS.

In the Further NPRM, the Commission concluded that "post-cut-through digits representing all telephone numbers needed to route a call...ultimately to the intended party are call-identifying information."[15] Further NPRM, ¶ 128. Numerous carriers demonstrate why this tentative conclusion is incorrect.

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[14] House Report, at 3501.

[15] Presumably, the Commission has rejected any suggestion that post-cut-through dialed digits that are not involved in routing a call, for example, digits that are used to dial in a credit card number, are call-identifying.

First, as almost every commenter pointed out, for the originating carrier, post-cut-through dialed digits are not call-identifying information because they are not used by the carrier to route, or even to "treat," a call.[16] Because wireless carriers do not use Dual Tone Multi-Frequency ("DTMF") receivers, no DTMF signals are "call-identifying" information for wireless carriers.[17] While post-cut-through digits may be used by a caller to signal further routing instructions for another carrier's network, there is no way to distinguish this use from a use to signal content, such as a credit card number.[18] Any such use should be irrelevant for capability, because Congress made clear that all post-cut-through dialed digits are not call-identifying when it stated that "dialing tones that may be generated by the sender that are used to signal customer premises equipment of the recipient are not to be treated a call-identifying information."[19]

Second, the record makes clear that dialed digit extraction ("DDE") cannot be deemed "reasonably available" for technical reasons. Every carrier and the FBI conceded that there is no technology available to permit a carrier to distinguish between post-cut-through digits that are used by another carrier for call-routing

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[16] See CTIA Comments, at 34; SBC Comments, at 17-18; TIA Comments, at 40; U S West Comments, at 20.

[17] See AirTouch Comments, at 25.

[18] See, e.g., AirTouch Comments, at 26; Ameritech Comments, at 11; BellSouth Comments, at 18; SBC Comments, at 17-18.

[19] House Report, at 3501.

and those that are used as call content information.[20] Thus, distinguishing call-routing and call content digits would involve major, and unknown, changes to network architectures.[21] Moreover, for the same reason, providing post-cut-through digits to LEAs raises serious privacy issues and could only be accomplished through an appropriate wiretap order; otherwise, carriers may be providing LEAs with call content information without proper authorization.[22] The Commission itself recognized the very same technical difficulty in the context of packet mode communications. Further NPRM, ¶ 63.

Third, DDE is not reasonably available for cost reasons as well. As many wireline carriers pointed out, DTMF receivers in the switch are only used to set up a call; providing DDE would require dedicated DTMF receivers for each call under surveillance, which could result in the addition of hundreds of thousands of receivers.[23] Furthermore, because wireless carriers do not use tone receivers for call routing at all, "major software changes would be required for most wireless switches and significant changes would be required in the engineering and capacity guidelines for mobile switching centers to accommodate the additional hardware

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[20] See, e.g., AT&T Comments, at 18-19; FBI Comments, at 67 ("As far as the government is aware, that technical capability does not currently exist.").

[21] See AirTouch Comments, at 26; Ameritech Comments, at 12.

[22] See TIA Comments, at 42-43.

[23] See BellSouth Comments, at 18; CTIA Comments, at 37; TIA Comments, at 41-42.

required for each surveillance."[24] One vendor stated that implementation of DDE would be "cost prohibitive."[25]

Fourth, the FBI has not justified imposing these burdens on J-STD-025. The FBI argues that any call routing information constitutes "call identifying" information, without regard to whether it is intelligible or identifiable to the carrier originating a call, and so must be captured in J-STD-025.[26] This argument, however, does not square with Congress' specific admonition that "dialing tones that may be generated by the sender that are used to signal customer premises equipment of the recipient are not to be treated as call-identifying information."[27]

As to the reasonable availability of DDE, the FBI concedes that every carrier's equipment would require modification to implement DDE, and that for one critical aspect of DDE, i.e., distinguishing between digits that are "call-identifying" versus digits that are "call content," there is no technical solution available.[28] However, it claims that technical considerations, as well as any consideration of cost for such modifications, is irrelevant to the only question before the Commission -- whether a network feature should be part of the standard for CALEA compliance.[29]

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[24] CTIA Comments, at 36; TIA Comments, at 41.

[25] AirTouch Comments, at 27.

[26] FBI Comments, at 66-67.

[27] House Report, at 3501.

[28] FBI Comments, at 67.

[29] Id. at 68.

The FBI ignores the plain language of Section 103(a)(2). Carriers are only obligated to provide "call identifying information *that is reasonably available to the carrier.*" 47 U.S.C. § 1002(a)(2) (emphasis supplied). Therefore, the Commission must decide not only what is call identifying information, but also what call identifying information is reasonably available. Whether call identifying information is intelligible or identifiable to the originating carrier is relevant to this inquiry. Additionally, assuming a technical solution for the necessary modifications to network architecture could be developed, the record demonstrates that the cost would be prohibitive.[30]

Faced with these facts making post-cut-through dialed digits not reasonably available, the FBI has concocted an argument that requires the Commission to read the "reasonably available" qualification out of the statute. That interpretation would not be permitted even under the deferential Chevron standard.[31] Accordingly, the Commission must reject the FBI's position regarding DDE based on the plain language of the statute, and find that the exclusion of DDE from J-STD-025 is consistent with Section 103(a)(2).[32]

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[30] At the least, the technical problems make DDE not reasonably available. See FBI Comments, at 14 (claiming that "reasonably available" applies to technical infeasibility).

[31] See American Fed. of Gov. Employees v. Federal Labor Relations Authority, 798 F.2d 1525, 1528 (D.C. Cir. 1986) (deference to agency interpretation of statute does not extend to permitting agency to ignore explicit language); Mt. Emmons Min. Co. v. Babbitt, 115 F.3 1167, 1171 (10th Cir. 1997).

[32] The FBI's overreaching is unwarranted. The FBI has access to post-cut-through dialed digits through authorized wiretaps of call content channels and pen registers.

III. THE COMMISSION SHOULD EXCLUDE PACKET MODE TELECOMMUNICATIONS FROM THE FINAL CAPABILITY STANDARD.

The parties commenting on packet-mode data communications agree that the Commission should not apply any capability requirement to this technology at this time. They agree that there is no technology available to separate call content from call identifying information in packet mode. As SBC and others pointed out, "packet-mode communications, unlike more traditional telecommunications services, operate by combining the call-identifying information and the content in a single protocol data 'packet,' which are not separable given the current competitive and service quality imperatives that the marketplace is applying to data communications."[33] Consideration of any capability requirement for packet communications should await development of appropriate technology.

Commenters also identified serious obstacles to developing a capability to separate call-identifying information from call content in packet mode, and that imposing such a requirement on packet mode technology would have deleterious effects on the service. "[D]ata networks have a large number of interfaces, protocols and interconnecting arrangements which are still evolving: i.e., frame relay, SMDS, cell relay and the Internet's various higher level protocols. Different standards and

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[33] SBC Comments, at 8; see AirTouch Comments, at 33; U S West Comments, at 27; USTA Comments, at 11.

procedures would have to be developed for each if call identifying information and call content were required to be separated."[34]

Moreover, "placing such an obligation on carriers would hamper their efforts to speed the processing and routing of packet data."[35] Slowing down the speeds of packet-mode telecommunications would render this innovative technology significantly less useful to consumers.[36] Detracting from this technology would be contrary to CALEA itself, because Section 107(b) directs the Commission not only to consider costs of compliance but also whether a capability "serve[s] the policy of the United States to encourage the provision of new technologies and services to the public."[37]

The comments also agree that even the estimated cost of compliance is a substantial bar to including a capability requirement for packet mode.[38] As BAM noted, its cellular digital packet data ("CDPD") network uses a separate set of base stations and switches from those used for circuit-switched transmissions.[39] The cost of retrofitting this technology would be over and above the cost for retrofitting the existing circuit-switches infrastructure. At this point, there is no way to know the

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[34] USTA Comments, at 12; see AirTouch Comments, at 33; SBC Communications, at 9; U S West Comments, at 28.

[35] U S West Comments, at 27.

[36] SBC Comments, at 8-9; USTA Comments, at 11.

[37] 47 U.S.C. § 1006(b)(4).

[38] U S West Comments, at 27 (such a capability requirement would impose heavy costs and slow down the operation of the network).

[39] BAM Comments, at 12.

price tag on such modifications to the network. The record shows that these technical and cost burdens would have a significant impact on the wireless industry because cellular packet mode technology is in its infancy.[40] Accordingly, the Commission should not include any capability requirement for packet mode telecommunications generally and CDPD specifically from J-STD-025.

Excluding packet communications from any capability rule would not be contrary to the interests of the FBI. The FBI recognizes that call content and call-identifying information cannot be separated in packet mode, and that, for example, in pen register cases, carriers must deliver the entire data stream to LEAs from which LEAs extract call-identifying information.[41] Because J-STD-025 is consistent with this practice, the FBI does not claim that it is deficient in this regard. "Nothing in the language or legislative history of CALEA indicates that Congress meant to prohibit this longstanding arrangement."[42] The FBI suggests that the Commission should not attempt to delve into the nuances of packet mode technology at this time,[43] and BAM agrees.

BAM does, however, object to the FBI's gratuitous suggestions that, with respect to packet mode technology, CALEA requires that (a) packet mode and circuit mode be treated alike and (b) it is not relevant to the capability inquiry

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[40] See AirTouch Comments, at 33 n.52; BAM Comments, at 12; U S West Comments, at 28; see also AT&T Comments, at 25.

[41] See FBI Comments, at 79.

[42] Id. at 80.

[43] Id. at 80-81.

under Section 103 whether call-identifying information in packet mode is "reasonably available." Like the FBI's positions on in-band and out-of-band network signaling and DDE, these positions are contrary to the plain language of Section 103.

The FBI's discussion of its obligations under the pen register statute (18 U.S.C. §§ 3121 et seq.) demonstrates why its construction of Section 103 is incorrect. As the FBI points out, CALEA amended the pen register statute to require that an LEA should use "technology reasonably available to it that restricts the recording or decoding of electronic or other impulses to the dialing and signaling information used in call processing."[44] The legislative history indicates that Congress intended LEAs to be required to use such technology "when reasonably available."[45] If Congress used the "reasonably available" qualifier to place a limit on an LEA's responsibility to seek out and use technology, then it surely used the same language to limit the responsibility of carriers for complying with the capability requirement in Section 103. The FBI's efforts to read "reasonably available" out of the statute are wrong and should be specifically rejected.

IV. CONCLUSION

The record confirms that there is no legal or factual basis for the Commission to override the industry standard by imposing additional capability requirements.

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[44] 18 U.S.C. § 3121(c).

[45] House Report, at 32.

The FBI has failed to meet its burden to prove why J-STD-025 is deficient or why adding to that standard would be justified. The Commission should terminate this proceeding by finding that J-STD-025 fully meets CALEA's objectives.[46]

Respectfully submitted,

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[46] Instead, the Commission should promptly invoke its responsibility under Section 109 of CALEA to determine that compliance with the Act's capability standard is not "reasonably achievable" with respect to equipment deployed after January 1, 1995. As BAM explained in its initial comments (at 14-17), this "grandfather" date was premised on the assumption that carriers could deploy CALEA-compliant equipment after that date, knowing what capabilities were required. That assumption proved incorrect. Carriers (particularly the many new entrants who began offering service after 1994) are now faced with the massive task of retrofitting and rebuilding their networks. Section 109 grants the Commission the authority to fix this problem, and it should do so now. Waiting for hundreds of individual Section109 petitions would not serve the interests of the Commission, law enforcement, carriers or the public.